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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/802,864

03/18/2004

Takeshi Funahashi

Q80378

5446

23373 7590 09/16/2008
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

MOLINA, ANITA C

ART UNIT

PAPER NUMBER

3626

MAIL DATE

DELIVERY MODE

09/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/802,864	Applicant(s) FUNAHASHI, TAKESHI	
	Examiner ANITA MOLINA	Art Unit 3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/18/2004 and 08/17/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For example, line 20 of claim 1 states "forecasting a second area, related to the first area with respect to the spread of the disease and in which the disease is supposed to spread in the future, based on a relationship between the first area and the second area." It is unclear how the second area is forecasted and it would not have been clear to one of ordinary skill in the art at the time of the invention.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention does not lie within one of the four classes of statutory subject matter. The claimed invention does fall with the judicial exception category of an abstract idea. The invention does not transform an article or physical object, and it does not produce any useful, concrete, and tangible result. As shown by Heggett, there are many ways to predict the geographical spread of a disease

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(see: at least Figures 1 and 2). The unspecified method of forecasting an area where a disease is supposed to spread in the does not produce a repeatable and predictable result. Therefore, claim 10 is not allowable subject matter.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4-6, and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0236604 to McNair in view of US 2003/0129578 to Mault and in view of Haggett.

As per claim 1, McNair teaches **a medical network server for receiving and transmitting information on electric medical charts from/to a plurality of medical institutions through a communication network, comprising:**

-a patient information storage section storing thereon the information on the electric medical charts including medical records of a plurality of patients diagnosed by a physician at each of the plurality of medical institutions, and location information indicating location of each of the medical institutions or addresses of patients (see: paragraphs 86 and 50);

McNair fails to teach:

-an incidence rate computing section for computing incidence rate of a disease in each area based on the medical records and the location information of the plurality of patients; and

-a spread area identification section for identifying a first area, where the disease spreads, based on the incidence rate computed by said incidence rate computing section.

Mault teaches calculating the incidence of infectious diseases in certain populations (in geographic areas) based on information reported to a computer system (see: paragraph 40 and 41) and detecting infectious diseases and their geographic spread (see: paragraph 40). It would have been obvious to one of ordinary skill in the art to include in the patient information storing system of McNair, the computing of disease incidence and detecting the spread of that disease as taught by Mault because the claimed invention is merely a combination of old elements, and in the combination, each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

McNair fails to teach **a spread area forecast section for forecasting a second area, related to the first area with respect to the spread of the disease and in which the disease is supposed to spread in the future, based on a relationship between the first area and the second area.** Haggett teaches many different ways that the spread of a disease in a geographic area can be predicted (forecasted) based on the relationship between a first area and second area (see: at least Figure 2). It

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would have been obvious to one of ordinary skill in the art to include in the patient information storing system of McNair, the forecasting of the disease spread as taught by Haggett because the claimed invention is merely a combination of old elements, and in the combination, each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

As per claim 2, McNair fails to teach the claimed medical network server, **wherein said spread area forecast section forecasts the second area based on outbreak history information including the incidence rate of the disease in each of the areas during a plurality of time periods in the past.** Haggett teaches using past epidemic behavior (which would include the incidence rates at specific times and in specific areas) to predict the spread of a current epidemic (see: page 17, Discussion section, point 3). It would have been obvious to one of ordinary skill in the art to include in the patient information storing system of McNair, the forecasting of the disease spread based on outbreak history as taught by Haggett for the same reasons set forth for claim 1.

As per claim 4, McNair fails to specifically teach the claimed medical network server, **further comprising an outbreak forecast information storage section storing thereon the outbreak forecast information, wherein said spread area forecast section forecasts the second area based on the outbreak forecast information stored on said outbreak forecast information storage section.**

McNair teaches storage for the information used in a system that detects outbreaks

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(see: paragraph 86). Haggett teaches using such information as described by McNair (such as geographic location as pointed out for claim 1) in predicting the spread of a disease (see: at least page 7, Spatial prediction heading). It would have been obvious to one of ordinary skill in the art to include in the patient information storing system of McNair, the forecasting of the disease spread as taught by Haggett for the same reasons set forth for claim 1.

As per claim 5, McNair fails to teach the claimed medical network server, **wherein said spread area forecast section further forecasts a time period when the disease will spread in the second area based on the outbreak history information.** Haggett teaches using breakout history to detect the time period of the approach of an epidemic (see: first two paragraphs, page 14). It would have been obvious to one of ordinary skill in the art to include in the patient information storing system of McNair, the forecasting timing of the disease spread as taught by Haggett for the same reasons set forth for claim 1.

As per claim 6, McNair fails to teach the claimed medical network server, **further comprising a warning section for issuing warning to the medical institution located in the second area forecasted by said spread area forecast section in order to prompt the medical institution located in the second area forecasted by said spread area forecast section to prepare for the spread of the disease in the future.** Mault teaches providing healthcare providers with information to prepare for emerging healthcare demands (warning information) indicated by monitored disease progression (see: paragraph 41). It would have been obvious to one of ordinary skill in

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the art to include in the patient information storing system of McNair, the warning information as taught by Mault for the same reasons set forth for claim 1.

As per claim 9, McNair teaches **a medical network system for relaying information on electric medical charts through a communication network, i0 comprising:**

-a plurality of medical institutions storing therein the electric medical charts (see: paragraph 11); and

-a medical network server for receiving and transmitting the information on the electric medical charts from/to the plurality of medical institutions through the communication network, wherein said medical network server comprises (see: paragraph 84):

--a patient information storage section storing thereon the information on the electric medical charts including medical records of a plurality of patients diagnosed by a physician at each of the plurality of medical institutions, and location information indicating location of each of the medical institutions or addresses of patients (see: paragraphs 86 and 50);

McNair fails to teach:

--an incidence rate computing section for computing incidence rate of a disease in each area based on the medical records and the location information of the plurality of patients; and

--a spread area identification section for identifying a first area, where the disease spreads, based on the incidence rate computed by said incidence rate computing section.

Mault teaches calculating the incidence of infectious diseases in certain populations (in geographic areas) based on information reported to a computer system (see: paragraph 40 and 41) and detecting infectious diseases and their geographic spread (see: paragraph 40). It would have been obvious to one of ordinary skill in the art to include in the patient information storing system of McNair, the computing of disease incidence and detecting the spread of that disease as taught by Mault for the same reasons set forth for claim 1.

McNair fails to teach **a spread area forecast section for forecasting a second area, related to the first area with respect to the spread of the disease and in which the disease is supposed to spread in the future, based on a relationship between the first area and the second area.** Haggett teaches many different ways that the spread of a disease in a geographic area can be predicted (forecasted) based on the relationship between a first area and second area (see: at least Figure 2). It would have been obvious to one of ordinary skill in the art to include in the patient information storing system of McNair, the forecasting of the disease spread as taught by Haggett for the same reasons set forth for claim 1.

As per claims 10 and 11, they are rejected for the same reasons set forth for claim 1.

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6. Claims 3, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0236604 to McNair in view of US 2003/0129578 to Mault and in view of Haggett and in view of US 7,343,302 to Aratow et al, hereinafter, Aratow.

As per claim 3, McNair fails to teach the claimed medical network server, **wherein said spread area forecast section forecasts the second area based on frequency of traffic between the first area and the second area.** Aratow teaches a system that tracks bio-terror threats and their impacts on things such as volumes at hospitals and emergency departments (disease incidence) using crowd behavior, disease distribution, and traffic flow to predict areas of greatest potential yield (see: column 10, lines 5-20). It would have been obvious to one of ordinary skill in the art to include in the patient information storing system of McNair, the use of traffic patterns to determine disease incidence as taught by Aratow because the claimed invention is merely a combination of old elements, and in the combination, each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

As per claim 7, McNair fails to teach the claimed medical network server, **further comprising a medical device indicating section for indicating medical devices required by the medical institution for diagnosis and treatment of the disease to the medical institution.** Aratow teaches a system that uses icons to direct hospital resources (medical devices) to best serve emergency needs in a possible outbreak (see: column 9, lines 37-47). It would have been obvious to one of ordinary skill in the

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art to include in the patient information storing system of McNair, the indication of needed resources as taught by Aratow for the same reasons set forth for claim 3.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0236604 to McNair in view of US 2003/0129578 to Mault and in view of Haggett and in view of US 7,343,302 to Aratow and in view of US 7,197,481 to Yamamoto et al, hereinafter, Yamamoto.

As per claim 8, McNair fails to teach the claimed medical network server, **wherein said medical device indicating section further indicates quantity of the medical devices required by the medical institution for diagnosis and treatment of the disease to the medical institutions based on the incidence rate computed by said incidence rate computing section.** Determining a quantity of a product needed to meet demand requirements is an old idea. For example, Yamamoto teaches a system that uses sales information (information indicating a requirement much like an incidence rate of a disease) for determining the quantity of a product to be manufactured. It would have been obvious to one of ordinary skill in the art to include in the patient information storing system of McNair, the use of information to determine the quantity demand of a product as taught by Yamamoto because the claimed invention is merely a combination of old elements, and in the combination, each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANITA MOLINA whose telephone number is (571)270-3614. The examiner can normally be reached on Monday through Friday 8am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, C. Luke Gilligan can be reached on 571-272-6770. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ANITA MOLINA/
Examiner, Art Unit 3626
09/10/2008

/Robert Morgan/
Primary Examiner, Art Unit 3626